Index to Volume 64

Author Index

Abecassis, J. See C. Renard, 177

Aikasalo, R. See M. Lehtonen, 133, 191

Albers, L. E. See G. L. Lookhart, 199

Albrecht, J. A., E. H. Asp, and I. M. Buzzard. Contents and retentions of sodium and other minerals in pasta cooked in unsalted or salted water,

Añón, M. C. See C. E. Lupano, 437

Asp, E. H. See J. A. Albrecht, 106

Axtell, J. See G. Ejeta, 137

Bains, G. S. See K. Harinder, 359

Ballance, G. M. See R. J. Peña, 128

Banda-Nyirenda, D. B. G., P. Vohra, and K. H. Ingebretson. Nutritional evaluation of some varieties of sorghums (Sorghum bicolor (L.) Moench), 413

Bauer, T. L. See F. Y. Iskander, 285 Bean, M. M. See C. S. Gaines, 46

Bertrand, D. See C. Renard, 177

Bhattacharya, K. R. See K. R. Unnikrishnan, 315, 321

Bhatty, R. S., and J. R. Whitaker. In vivo and in vitro protein digestibilities of regular and mutant barleys and their isolated protein fractions, 144 Bietz, J. A. See F. R. Huebner, 15

See J. S. Wall, 275

Bolte, L. C., 39

Bookwalter, G. N. See Y. V. Wu, 434

Bressani, R. See C. Mendoza M., 218

Brooks, J. R., and V. K. Griffin. Saccharide analysis of corn syrup solids and maltodextrins using high-performance liquid chromatography, 253 Brown, G. See P. G. Krishnan, 55

Buck, J. S., C. E. Walker, and K. S. Watson. Incorporation of corn gluten meal and soy into various cereal-based foods and resulting product functionality, sensory, and protein quality, 264 Bushuk, W. See P. K. W. Ng, 324

Buzzard, I. M. See J. A. Albrecht, 106

Cady, N. D., A. E. Carter, B. E. Kayne, M. E. Zabik, and M. A. Uebersax. Note: Navy bean flour substitution in a master mix used for muffins and cookies, 193

Campbell, W. P., C. W. Wrigley, P. J. Cressey, and C. R. Slack. Statistical correlations between quality attributes and grain-protein composition for 71 hexaploid wheats used as breeding parents, 293

See P. J. Cressey, 299

Carter, A. E. See N. D. Cady, 193

Chang, K. C. See P. G. Krishnan, 55

Cherdkiatgumchai, P., and D. R. Grant. Note: The determination of ascorbic acid in wheat flour suspension by differential pulse polarography, 288

Choudhury, N. H. See B. O. Juliano, 27

Chungcharoen, A., and D. B. Lund. Influence of solutes and water on rice starch gelatinization, 240

Clark, R. B. See B. O. Juliano, 27

Clements, R. L. A study of gliadins of soft wheats from the eastern United States using a modified polyacrylamide gel electrophoresis procedure, 442

Clydesdale, F. M. See S. R. Platt, 102

Corpuz, I. G. See B. O. Juliano, 27

Cressey, P. J., W. P. Campbell, C. W. Wrigley, and W. B. Griffin. Statistical correlations between quality attributes and grain-protein composition for 60 advanced lines of crossbred wheat, 299

See W. P. Campbell, 293

Cuppett, S. L. See S. J. Koeppe, 332

_____. See P. L. Harris, 283 Czuchajowska, Z. See C. R. Martin, 356

Davis, E. A. See L. E. Pearce, 154

Devaux, M. F. See C. Renard, 177

Dhaliwal, A. S., D. J. Mares, and D. R. Marshall. Effect of 1B/1R chromosome translocation on milling and quality characteristics of bread wheats, 72

Dietz, H. M. See R. D. King, 411

Doescher, L. C., R. C. Hoseney, and G. A. Milliken. A mechanism for cookie dough setting, 158

, and G. L. Rubenthaler. Effect of sugars and flours on cookie spread evaluated by time-lapse photography, 163

Doherty, C. A., R. D. Waniska, L. W. Rooney, C. F. Earp, and J. H. Poe. Free phenolic compounds and tannins in sorghum caryopsis and glumes during development, 42

Donelson, J. R. See C. S. Gaines, 46

Dong, F. M., B. A. Rasco, and S. S. Gazzaz. A protein quality assessment of wheat and corn distillers' dried grains with solubles, 327

See B. A. Rasco, 139

See M. L. San Buenaventura, 135

Doublier, J.-L., D. Paton, and G. Llamas. A rheological investigation of oat starch pastes, 21

Downey, S. E. See B. A. Rasco, 139

Earp, C. F. See C. A. Doherty, 42

Ehiwe, A. O. F., and R. D. Reichert. Variability in dehulling quality of cowpea, pigeon pea, and mung bean cultivars determined with the tangential abrasive dehulling device, 86

, D. J. Schwab, E. S. Humbert, and G. Mazza. Effect of seed moisture content and temperature on the seed coast durability of field pea, 237

Ejeta, G., and J. Axtell. Protein and lysine levels in developing kernels of normal and high-lysine sorghum, 137

Elkin, R. G., and A. M. Wasynczuk. Amino acid analysis of feedstuff hydrolysates by precolumn derivatization with phenylisothiocyanate and reversed-phase high-performance liquid chromatography, 226

Endo, S., K. Okada, and S. Nagao. Studies on dough development. III. Mixing characteristics of flour streams and their changes during dough mixing in the presence of chemicals, 110

Fennema, O. See S. P. Kaufman, 172

Gaines, C. S., R. E. Miller, J. R. Donelson, and M. M. Bean. Optimizing grinder type and methods of expressing wheat meal particle size for wheat texture (hardness or softness) measurement and near-infrared reflectance spectroscopy, 46

Gazzaz, S. S. See F. M. Dong, 327

Gordon, J. See L. E. Pearce, 154

Grant, D. R. Ascorbate oxidase inhibition in dough by fluoride ion and its effect upon dough rheology, 403

. See P. Cherdkiatgumchai, 288 Griffin, V. K. See J. R. Brooks, 253

Griffin, W. B. See P. J. Cressey, 299

Hahn, D. E., and L. F. Hood. Development of an equilibrium dialysis technique for quantifying starch-lipid complexes, 77

.. Factors influencing corn starch-lipid complexing, 81 and_ Hanna, M. A. See S. J. Koeppe, 332

Hansen, L. M., J. V. Paukstelis, and C. S. Setser. 13C nuclear magnetic resonance spectroscopic methods for investigating sucrose-starch interactions with increasing temperature, 449

Harinder, K., and G. S. Bains. High alpha-amylase flours: Effect of pH, acid, and salt on paste characteristics, 359

Harris, P. L., S. L. Cuppett, C. E. Walker, and J. H. Rupnow. Note: Lipid and color evaluations of solvent-extracted maize gluten meal, 283

_____. See S. J. Koeppe, 332 Harwalkar, V. R. See C.-Y. Ma, 212

Hashimoto, S., M. D. Shogren, and Y. Pomeranz. Cereal pentosans: Their estimation and significance. I. Pentosans in wheat and milled wheat products, 30

and_ , L. C. Bolte, and Y. Pomeranz. Cereal pentosans: Their estimation and significance. III. Pentosans in abraded grains and milling by-products, 39

See M. D. Shogren, 35

Hebsted, M. See K. S. Keim, 352 Hendricks, D. G. See A. M. Thannoun, 399

Hino, A., H. Takano, and Y. Tanaka. New freeze-tolerant yeast for frozen dough preparations, 269

Holloway, C. L. See K. S. Keim, 352

Holmes, J. T., and R. C. Hoseney. Chemical leavening: Effect of pH and

certain ions on breadmaking properties, 343

, and _ ... Frozen doughs: Freezing and thawing rates and the potential of using a combination of yeast and chemical leavening, 348 Hood, L. F. See D. E. Hahn, 77, 81

Hoseney, R. C. See L. C. Doescher, 158, 163

. See J. T. Holmes, 343, 348 See D. E. Rogers, 370

See K. H. Zeleznak, 121

Huebner, F. R., and J. A. Bietz. Improvements in wheat protein analysis and quality prediction by reversed-phase high-performance liquid chromatography, 15

Humbert, E. S. See A. O. F. Ehiwe, 237

Ibabao, M. G. B. See B. O. Juliano, 27

Ingebretson, K. H. See B. G. D. Banda-Nyirenda, 413

Inglett, G. E. See B. R. Krueger, 187

Iskander, F. Y., M. M. Morad, D. E. Klein, and T. L. Bauer. Note: Determination of protein and 11 elements in six milling fractions of two wheat varieties, 285

Jackson, D. S., and L. W. Rooney. Note: Rapid determination of moisture in masa with a domestic microwave oven, 196

Johnston, B. See M. Vaisey-Genser, 50

Juliano, B. O., M. G. B. Ibabao, C. M. Perez, R. B. Clark, J. W. Maranville, C. P. Mamaril, N. H. Choudhury, C. J. S. Momuat, and 1. G. Corpuz. Effect of soil sulfur deficiency on sulfur amino acids and elements in brown rice, 27

. See C. P. Villareal, 337

Kadan, R. S., and G. M. Ziegler, Jr. Changes in iron forms during extrusion processing, 256

Kaldy, M. S., and G. L. Rubenthaler. Milling, baking, and physicalchemical properties of selected soft white winter and spring wheats, 302 Kaufman, S. P., and O. Fennema. Evaluation of sulfhydryl oxidase as a

strengthening agent for wheat flour dough, 172

Kayne, B. E. See N. D. Cady, 193

Keim, K. S., C. L. Holloway, and M. Hebsted. Absorption of chromium as affected by wheat bran, 352

Kilborn, R. H. See P. C. Williams, 422

King, R. D., and H. M. Dietz. Air classification of rapeseed meal, 411

Klein, D. E. See F. Y. Iskander, 285 Kloek, M. See P. C. Williams, 422

Knabe, D. A. See S. O. Serna-Saldivar, 247

Knorr, D. Compressibility of baked goods after carbon dioxide atmosphere processing and storage, 150

Knutson, C. A. See B. R. Krueger, 187

Koeppe, S. J., P. L. Harris, M. A. Hanna, J. H. Rupnow, C. E. Walker, and S. L. Cuppett. Physical properties and some nutritional characteristics of an extrusion product with defatted amaranth seeds and defatted maize gluten meal (80:20 ratio), 332

Koyoro, H., and J. R. Powers. Functional properties of pea globulin fractions, 97

Krishnan, P. G., K. C. Chang, and G. Brown. Effect of commercial oat bran on the characteristics and composition of bread, 55

Krueger, B. R., C. E. Walker, C. A. Knutson, and G. E. Inglett. Differential scanning calorimetry of raw and annealed starch isolated from normal and mutant maize genotypes, 187

Kulkarni, R. G., J. G. Ponte, Jr., and K. Kulp. Significance of gluten content as an index of flour quality, I

Kulp, K. See R. G. Kulkarni, I

See T. A. Kuracina, 182

Kuracina, T. A., K. Lorenz, and K. Kulp. Starch functionality as affected by amylases from different sources, 182

Kuzina, F. D. See R. Tkachuk, 418

Lehtonen, M., and R. Aikasalo. Note: Pentosans in barley varieties, 133 and_ __. Note: β-Glucan in two- and six-rowed barley, 191

Lilley, G. G. See S. K. Sathe, 380 Llamas, G. See J.-L. Doublier, 21

Lookhart, G. L. Communication to the editor: Gliadins treated with trifluoroacetic acid are water soluble, 452

L. E. Albers, Y. Pomeranz, and B. D. Webb. Identification of U.S. rice cultivars by high-performance liquid chromatography, 199 See M. Menkovska, 311

Lorenz, K. See T. A. Kuracina, 182

Love, G. R., and L. M. Seitz. Effects of location and cultivar on Fusarium head blight (scab) in wheat from Kansas in 1982 and 1983, 124 Lund, D. B. See A. Chungcharoen, 240

Lundgren, B. See U. Stöllman, 230

Lupano, C. E., and M. C. Añón. Denaturation of wheat endosperm proteins during drying, 437

Ma, C.-Y., and V. R. Harwalker. Thermal coagulation of oat globulin, 212 Mahoney, A. W. See A. M. Thannoun, 399

Mamaril, C. P. See B. O. Juliano, 27

Maranville, J. W. See B. O. Juliano, 27

Mares, D. J. See A. S. Dhaliwal, 72

Marshall, D. R. See A. S. Dhaliwal, 72

Martin, C. R., Z. Czuchajowska, and Y. Pomeranz. Note: Evaluation of digitally filtered aquagram signals of wet and dry corn mixtures, 356

Mason, A. C. See S. K. Sathe, 380 Mazza, G. See A. O. F. Ehiwe, 237

Mendoza M., C., and Bressani, R. Nutritional and functional characteristics of extrusion-cooked amaranth flour, 218

Menkovska, M., G. L. Lookhart, and Y. Pomeranz. Changes in the gliadin fraction(s) during breadmaking: Isolation and characterization by highperformance liquid chromatography and polyacrylamide gel electrophoresis, 311

Miller, R. E. See C. S. Gaines, 46

Miller, W. G. See L. E. Pearce, 154

Milliken, G. A. See L. C. Doescher, 158, 163

Momuat, C. J. S. See B. O. Juliano, 27

Morad, M. M. See F. Y. Iskander, 285

Munck, L. See P. Vaag, 59

Nagao, S. See S. Endo, 110

See K. Okada, 3, 428

Navickis, L. L. Corn flour addition to wheat flour dough-effect on rheological properties, 307

Negishi, Y. See K. Okada, 3, 428

Ng, P. K. W., and W. Bushuk. Glutenin of Marquis wheat as a reference for estimating molecular weights of glutenin subunits by sodium dodecyl sulfate-polyacrylamide gel electrophoresis, 324

Nigam, S. N. See U. J. S. Prasada Rao, 168

Nowakowski, D. M., F. W. Sosulski, and R. D. Reichert. Air classification of pin-milled break and middling flours from hard red spring wheat, 363

Okada, K., Y. Negishi, and S. Nagao. Studies on heavily ground flour using roller mills. II. Chemical alteration of proteins, particularly globulin, during dough mixing, 3

. Factors affecting dough breakdown during and

overmixing, 428

See S. Endo, 110

Paton, D. Differential scanning calorimetry of oat starch pastes, 394 See J.-L. Doublier, 21

Paukstelis, J. V. See L. M. Hansen, 449

Pearce, L. E., E. A. Davis, J. Gordon, and W. G. Miller. Stearic acid-starch interactions as measured by electron spin resonance, 154

Peña, R. J., and G. M. Ballance. Comparison of gluten quality in triticale: A fractionation-reconstitution study, 128

Perez, C. M. See B. O. Juliano, 27

Pierce, M. M., and C. E. Walker. Addition of sucrose fatty acid ester emulsifiers to sponge cakes, 222

Platt, S. R., and F. M. Clydesdale. Interactions of iron, alone and in combination with calcium, zinc, and copper, with a phytate-rich, fiberrich fraction of wheat bran under gastrointestinal pH conditions, 102

Poe, J. H. See C. A. Doherty, 42 Pomeranz, Y. See S. Hashimoto, 30, 39

See G. L. Lookhart, 199

See C. R. Martin, 356

See M. Menkovska, 311

See G. L. Rubenthaler, 407

See M. D. Shogren, 35

Ponte, J. G., Jr. See R. G. Kulkarni, 1

Powers, J. R. See H. Koyoro, 97

Prasada Rao, U. J. S., and S. N. Nigam. Gel filtration chromatography of glutenin in dissociating solvents: Effect of removing noncovalently bonded protein components on the viscoelastic character of glutenin, 168 Price, R. L. See M. O. Wiseman, 91, 94

Rasco, B. A., S. E. Downey, and F. M. Dong. Consumer acceptability of baked goods containing distiller's dried grains with solubles from soft white winter wheat, 139

See F. M. Dong, 327

. See M. L. San Buenaventura, 135

Reichert, R. D. See A. O. F. Ehiwe, 86, 237

See R. Tkachuk, 418

Renard, C., P. Robert, D. Bertrand, M. F. Devaux, and J. Abecassis. Qualitative characterization of the purity of milled durum wheat products by multidimensional statistical analysis of their mid-infrared diffuse reflectance spectra, 177

Robert, P. See C. Renard, 177

Rogers, D. E., and R. C. Hoseney. Test to determine the optimum water absorption for saltine cracker dough, 370

Rooney, L. W. See C. A. Doherty, 42 .. See D. S. Jackson, 196

See S. O. Serna-Saldivar, 247

. See N. E. Vivas, 384, 390

Rubenthaler, G. L., and Y. Pomeranz. Near-infrared reflectance spectra of hard red winter wheats varying widely in protein content and breadmaking potential, 407

See L. C. Doescher, 163 See M. S. Kaldy, 302

Rupnow, J. H. See P. L. Harris, 283

.. See S. J. Koeppe, 332

San Buenaventura, M. L., F. M. Dong, and B. A. Rasco. Note: The total dietary fiber content of wheat, corn, barley, sorghum, and distillers' dried grains with solubles, 135

Sathe, S. K., G. G. Lilley, A. C. Mason, and C. M. Weaver. High-resolution sodium dodecyl sulfate polyacrylamide gel electrophoresis of soybean (Glycine max L.) seed proteins, 380

Schwab, D. J. See A. O. F. Ehiwe, 237

Seguchi, M. Note: Effect of chlorination on the hydrophobicity of wheat starch, 281

Seitz, L. M. See G. R. Love, 124 Serna-Saldivar, S. O., D. A. Knabe, L. W. Rooney, and T. D. Tanksley, Jr. Effects of lime cooking on energy and protein digestibilities of maize and sorghum, 247

Setser, C. S. See L. M. Hansen, 449

Shogren, M. D., S. Hashimoto, and Y. Pomeranz. Cereal pentosans: Their estimation and significance. II. Pentosans and breadmaking characteristics of hard red winter wheat flours, 35

See S. Hashimoto, 30, 39 Slack, C. R. See W. P. Campbell, 293

Sosulski, F. W. See D. M. Nowakowski, 363

Stöllman, U., and B. Lundgren. Texture changes in white bread: Effects of processing and storage, 230

Takahashi, N. See T. Yamagishi, 207

Takano, H. See A. Hino, 269

Tanaka, Y. See A. Hino, 269

Tanksley, T. D., Jr. See S. O. Serna-Saldivar, 247

Thannoun, A. M., A. W. Mahoney, D. G. Hendricks, and Zhang, D. Effect of meat-bread mixtures on bioavailability of total dietary iron for anemic rats, 399

Tkachuk, R., F. D. Kuzina, and R. D. Reichert. Analysis of protein in ground and whole field peas by near-infrared reflectance, 418

Uebersax, M. A. See N. D. Cady, 193 Unnikrishnan, K. R., and K. R. Bhattacharya. Influence of varietal difference on properties of parboiled rice, 315

. Properties of pressure-parboiled rice as affected by , and . variety, 321

Vaag, P., and L. Munck. Immunochemical methods in cereal research and technology, 59

Vaisey-Genser, M., G. Ylimaki, and B. Johnston. The selection of levels of

canola oil, water, and an emulsifier system in cake formulations by response-surface methodology, 50 VanDrasek, H. T., and J. J. Warthesen. Thiamine partitioning and

retention in cooked rice and pasta products, 116

Villareal, C. P., and B. O. Juliano. Varietal differences in quality characteristics of puffed rices, 337

Vivas, N. E., R. D. Waniska, and L. W. Rooney. Effect of tortilla production on proteins in sorghum and maize, 384

Thin porridges (atole) prepared from maize and. and sorghum, 390

Vohra, P. See B. G. D. Banda-Nyirenda, 413

Voisey, P. W. See P. C. Williams, 422

Walker, C. E. See J. S. Buck, 264

See P. L. Harris, 283

See S. J. Koeppe, 332

See B. R. Krueger, 187

See M. M. Pierce, 222

Wall, J. S., and J. A. Bietz. Differences in corn endosperm proteins in developing seeds of normal and opaque-2 corn, 275

Waniska, R. D. See C. A. Doherty, 42

Warner, K. See Y. V. Wu, 434

Warthesen, J. J. See H. T. VanDrasek, 116

Wasynczuk, A. M. See R. G. Elkin, 226

Watson, K. S. See J. S. Buck, 264

Weaver, C. M. See S. K. Sathe, 380 Webb, B. D. See G. L. Lookhart, 199

Weisz, J. See P. J. Wood, 8 . See S. H. Yiu, 373

Whitaker, J. R. See R. S. Bhatty, 144 Williams, P. C., R. H. Kilborn, P. W. Voisey, and M. Kloek. Measuring wheat hardness by revolutions per minute reduction, 422

Wiseman, M. O., and R. L. Price. Characterization of protein concentrates of jojoba (Simmondsia chinensis) meal, 91

, and _ pressed jojoba meal, 94

Wood, P. J., and J. Weisz. Detection and assay of (1-4)-β-D-glucanase, (1→3)-\(\beta\)-D-glucanase, (1→3)(1→4)-\(\beta\)-D-glucanase, and xylanase based on complex formation of substrate with Congo red, 8

. See S. H. Yiu, 373

Wrigley, C. W. See W. P. Campbell, 293

See P. J. Cressey, 299

Wu, Y. V. Recovery of protein-rich by-products from sweet sorghum grain stillage after alcohol distillation, 244

. Recovery of stillage soluble solids from hard and soft wheat by reverse osmosis and ultrafiltration, 260

, V. L. Youngs, K. Warner, and G. N. Bookwalter. Evaluation of spaghetti supplemented with corn distillers' dried grains, 434

Yamagishi, T., N. Takahashi, and F. Yamauchi. Covalent polymerization of acidic subunits on heat-induced gelation of soybean glycinin, 207 Yamauchi, F. See T. Yamagishi, 207

Yiu, S. H., P. J. Wood, and J. Weisz. Effects of cooking on starch and β -glucan of rolled oats, 373

Ylimaki, G. See M. Vaisey-Genser, 50

Youngs, V. L. See Y. V. Wu, 434

Zabik, M. E. See N. D. Cady, 193 Zeleznak, K. J., and R. C. Hoseney. The glass transition in starch, 121 Zhang, D. See A. M. Thannoun, 399

Ziegler, G. M., Jr. See R. S. Kadan, 256

Subject Index

Page numbers of errata are in italics.

Acetic acid, insoluble protein, modification of (Okada et al), 428 Acknowledgment of reviewers, v

Air classification, of rapeseed meal (King and Dietz), 411

Alcohol, distillation, protein-rich by-products recovery from sweet sorghum grain stillage (Wu), 244

Amaranth, nutritional and functional properties of extruded product (Koeppe et al), 332

Amino acids

analysis of by reversed-phase HPLC (Elkin and Wasynczuk), 226 sulfur, of brown rice protein (Juliano et al), 27

Amylase, effects on starch (Kuracina et al), 182

Ascorbic acid

analysis by differential pulse polarography in wheat flour (Cherdkiatgumchai and Grant), 288

inhibition of enzymatic oxidation by fluoride ion in wheat flour doughs (Grant), 403

Baked goods

compressibility of (Knorr), 150

consumer sensory analysis (Rasco et al), 139

Baking

bread quality of oat-bran supplemented wheat breads (Krishnan et al), 55

cake, levels of canola oil, water, and emulsifier system selected by response surface methodology (Vaisey-Genser et al), 50

of cakes and cookies using soft white wheats (Kaldy and Rubenthaler) 302

master mix using navy bean flour (Cady et al), 193 quality detected by RP-HPLC of wheat proteins (Huebner and Bietz), 15 sponge cakes, effect of sucrose fatty acid ester emulsifiers (Pierce and Walker), 222

Barley

detection and assay of (1-3)-\beta-D-glucanase in malt (Wood and Weisz), 8 distillers' dried grains with solubles, total dietary fiber (San Buenaventura et al), 135

β-glucan in (Lehtonen and Aikasalo), 191

immunochemical methods for analysis of (Vaag and Munck), 59 pentosan contents in different varieties grown in Finland (Lehtonen and Aikasalo), 133

protein digestibilities of (Bhatty and Whitaker), 144

Beer, immunochemical methods for analysis of (Vaag and Munck), 59 Bioavailability

effect on iron forms during extrusion processing (Kadan and Ziegler), 256

wheat bran influence on chromium absorption (Keim et al), 352 Bran

characterization by mid-infrared spectroscopy (Renard et al), 177 oat, dietary fiber and protein composition (Krishnan et al), 55

influence on chromium absorption (Keim et al), 352 interaction with minerals (Platt and Clydesdale), 102

Bread and breadmaking

1B/1R translocation wheats and their recurrent parents, properties of (Dhaliwal et al), 72

baking quality of flour stream (Endo et al), 110

bread containing corn gluten meal and/or soy (Buck et al), 264 changes in gliadin fraction during (Menkovska et al), 311

chemical leavening, effect of pH and certain ions (Holmes and Hoseney), 343

freeze-tolerant yeast for frozen dough preparation, new (Hino et al), 269 frozen doughs (Holmes and Hoseney), 348

loaf volume predicted by protein composition (Campbell et al), 293 loaf volume and protein composition correlation (Cressey et al), 299

NIR spectra of hard red winter wheats varying in protein content and breadmaking potential (Rubenthaler and Pomeranz), 407 oat bran effect on characteristics and composition of (Krishnan et al), 55

properties of, pentosan and protein contents related to (Shogren et al), 35 white bread, effects of processing and storage on texture (Stöllman and Lundgren), 230

Cakes and cookies

baked with soft white wheats (Kaldy and Rubenthaler), 302

cakes, levels of canola oil, water, and emulsifier system selected by response surface methodology (Vaisey-Genser), 50

containing corn gluten meal and/or soy (Buck et al), 264

effect of sugars and flours on spread, use of time-lapse photography (Doescher et al), 163

mechanism for dough setting (Doescher et al), 158, 292

performance of navy bean flour in oatmeal cookies (Cady et al), 193 sponge cake, effect of sucrose fatty acid ester emulsifiers (Pierce and Walker), 222

Calcium, solubility in presence of phytate and minerals (Platt and Clydesdale), 102

Cereal, research and technology, immunochemical methods in (Vaag and Munck), 59

Chemical leavening, effect of certain ions on dough properties (Holmes and Hoseney), 343

Chlorination, of wheat starch (Seguchi), 281

Chromium, absorption as affected by phytate (Keim et al), 352

Coagulation, of oat globulin by heat (Ma and Harwalkar), 212 Compressibility, of baked goods (Knorr), 150

Cooking

nutrient losses during (VanDrasek and Warthesen), 116

lime cooking, effects on nutritional value and digestibilities (Serna-Saldivar et al), 247

solubilization effects on oat starch and β -glucan (Yiu et al), 373 Copper, phytate-mineral complexes (Platt and Clydesdale), 102

Corn (also see Maize) distillers' dried grains

protein quality (Dong et al), 327

with solubles, total dietary fiber (San Buenaventura et al), 135

spaghetti supplemented with (Wu et al), 434

endosperm protein differences in developing seeds of normal and opaque-2 (Wall and Bietz), 275

gluten meal, incorporation into cereal-based foods (Buck et al), 264 masa, moisture determination in (Jackson and Rooney), 196 starch-lipid complex, factors influencing (Hahn and Hood), 81

wet and dry mixtures, moisture determination (Martin et al), 356 Cowpeas, dehulling quality of, determined with Tangential Abrasive Dehulling Device (Ehiwe and Reichert), 86

Dehulling, variability quality of cowpea, pigeon pea, and mung bean using Tangential Abrasive Dehulling Device (Ehiwe and Reichert), 86

Differential scanning calorimetry solutes and water influence on rice starch gelatinization (Chungcharoen

and Lund), 240 of starch from normal and mutant maize genotypes (Krueger et al), 187

Distillers' dried grains, with solubles sensory analysis of baked goods containing (Rasco et al), 139 total dietary fiber (San Buenaventura et al), 135

Dough

breakdown during overmixing, factors affecting (Okada et al), 428

effect of freezing and thawing rates (Holmes and Hoseney), 348

new freeze-tolerant yeast for frozen dough preparation (Hino et al),

mechanism for cookie setting (Doescher et al), 158, 292

mixing characteristics of flour streams (Endo et al), 110

oat bran replacement effect on physical dough properties (Krishnan et al), 55

resistance and extensibility relating to gluten proteins (Campbell et al), 293; (Cressey et al), 299

wheat flour, sulfhydryl oxidase as strengthening agent for (Kaufman and Fennema), 172

wheat flour-corn flour, rheological property changes with replacement (Navickis), 307

Drying, modifications of wheat endosperm proteins (Lupano and Añón),

Electron spin resonance, stearic acid-starch interactions as measured by (Pearce et al), 154

Electrophoresis

of gliadins and glutenin subunits relating to grain quality (Campbell et al), 293; (Cressey et al), 299

PAGE of soft wheat gliadins (Clements), 442

Emulsifiers

cakes, levels of canola oil, water, and emulsifier system selected by response surface methodology (Vaisey-Genser et al), 50 sucrose fatty acid ester, effect on sponge cake (Pierce and Walker, 222

Enzymes

 β -D-glucanase and xylanase assay (Wood and Weisz), 8 bread-baking quality affected by (Kuracina et al), 182

Errata

Doescher et al (vol. 64, p. 161), 292

Gaines (vol. 63, p. 479), 198

Extrusion, iron form changes during processing (Kadan and Ziegler), 256 Extrusion cooking

amaranth flour, nutritional and functional characteristics of, 218 complementary blend of amaranth and maize gluten meal (Koeppe et al), 332

Fiber

characterization of wheat bran by mid-infrared spectroscopy (Renard et al), 177

dietary, composition in oat-bran supplemented breads (Krishnan et al), 55

interaction with minerals (Platt and Clydesdale), 102

total dietary, distillers' dried grains with solubles, wheat, corn, barley, and sorghum (San Buenaventura et al), 135

Flour

amaranth, nutritional and functional characteristics of extrusion-cooked (Mendoza and Bressani), 218

differences in hard and soft wheat for cookies (Doescher et al), 158, 292 effect on cookie spread (Doescher et al), 163

gluten content, relation to protein (Kulkarni et al), l

Fractionation, and reconstitution of triticale flours (Peña and Ballance, 128

Fusarium head blight (scab), in wheat, effects of location and cultivar on (Love and Seitz), 124

Gelatinization, rice starch, influence of solutes and water on (Chungcharoen and Lund), 240

Gliadin

changes during breadmaking (Menkovska et al), 311

reversed-phase high-performance liquid chromatography (Huebner and Bietz), 15

soft wheat PAGE patterns (Clements), 442

solubility in water after TFA treatment, communication to editor (Lookhart), 452

Globulin, fractionation by gel filtration (Okada et al), 3 β -Glucan

oat, solubilization by different cooking methods (Yiu et al), 373 in two- and six-rowed barley (Lehtonen and Aikasalo), 191

β-D-Glucanase, detection and assay by means of Congo red complex (Wood and Weisz), 8

Glucose syrups, HPLC analyses and characterization of (Brooks and Griffin), 253

Glucosinolates, fractionation during air classification of rapeseed meal (King and Dietz), 411

Gluten

determination, relation to flour protein (Kulkarni et al), I quality comparison among triticales (Peña and Ballance), 128

quality comparison among triticales (Peña and Ballance), 128 Glutenin effect of removing noncovalently bonded protein components on

viscoelastic character of (Prasada Rao and Nigam), 168 reversed-phase high-performance liquid chromatography (Huebner and Bietz), 15

subunit molecular weights by SDS-PAGE (Ng and Bushuk), 324 Grain

pentosans in (Hashimoto et al), 39

sweet sorghum, protein-rich by-products recovery from stillage after alcohol distillation (Wu), 244

Hardnes

rice, factors affecting (Villareal and Juliano), 337

rpm reduction, for wheat hardness determination (Williams et al), 422

of amino acids in feedstuff hydrolysates (Elkin and Wasynczuk), 226 analysis and characterization of glucose syrups and maltodextrins (Brooks and Criffin), 253

analysis of rice prolamins for identification (Lookhart et al), 199 for gliadin analysis (Menkovska et al), 311

improvements for analysis of wheat proteins (Huebner and Bietz), 15

Instructions to authors, iii

Iron

forms in extruded foods (Kadan and Ziegler), 256 solubility, effects of bran and phytate on (Platt and Clydesdale), 102

Jojoba meal, protein concentrates, characterization and functional properties of (Wiseman and Price), 91

Legumes, globulins in (Koyoro and Powers), 97

Lime cooking, effects on nutritional value and digestibilities (Serna-Saldivar et al), 247

Lipids, starch complex, factors influencing and method to quantify (Hahn and Hood), 81

Lysine, changes in lysine levels in developing kernels of normal and highlysine lines (Ejeta and Axtell), 137

Maize (also see Corn)

gluten meal, lipid and color evaluations of (Harris et al), 283 lime-cooked, nutritional value and amino acid composition (Serna-Saldivar et al), 247

proteins in, effect of tortilla production on (Vivas et al), 384 starch, differential scanning calorimetry of (Kreuger et al), 187 thin porridge prepared from (Vivas et al), 390

Maize gluten meal, nutritional and functional properties of an extruded product (Koeppe et al), 332

Malt, immunochemical methods for analysis of (Vaag and Munck), 59
Maltodextrins, HPLC analyses and characterization of (Brooks and Griffin), 253

Masa, moisture determination in (Jackson and Rooney), 196 Methods

¹³C nuclear magnetic resonance spectroscopic, for starch investigations (Hansen et al), 449

gluten washing (Kulkarni et al), 1

immunochemical, applications in basic and applied studies of barley, malt, and beer (Vaag and Munck), 59

rpm reduction, for wheat hardness determination (Williams et al), 422 starch-lipid complex quantification (Hahn and Hood), 77 wheat kernel texture, measurement of, in bulk samples (Gaines et al), 46

by-products, pentosans in (Hashimoto et al), 39

of hard and soft wheats and their IB/IR derivatives (Dhaliwal et al), 72 heavily ground flour using roller mills (Okada et al), 3 properties of soft white wheats (Kaldy and Rubenthaler), 302

Minerals

bioavailability of (Platt and Clydesdale), 102 determination in hard and soft red winter wheat (Iskander et al), 285 in pasta, contents and retention of (Albrecht et al), 106

Mixing, changes of globulin during dough mixing (Okada et al), 3 Mixograms, changes with wheat flour-corn flour composition (Navickis), 307

Moisture

in corn kernels, standard deviations (Martin et al), 356 determination in masa (Jackson and Rooney), 196

Molecular weight, of glutenin subunits by SDS-PAGE (Ng and Bushuk), 324

Near-Infrared (NIR) spectroscopy

analysis of protein in ground and whole field peas by (Tkachuk et al), 418 grinder comparison for (Gaines et al), 46

of hard red winter wheats varying in protein content and breadmaking potential (Rubenthaler and Pomeranz), 407

Nutrition, characteristics of amaranth flour (Mendoza and Bressani), 218

Oat globulin, thermal coagulation of (Ma and Harwalkar), 212 Oats, cooking effects on starch and β -glucan (Yiu et al), 373 Oil, canola, low erucic acid rapeseed oil in cakes (Vaisey-Genser et al), 50

PAGE, for gliadin analysis (Menkovska et al), 311

containing corn gluten meal and/or soy (Buck et al), 264 sodium and other minerals in, contents and retentions of (Albrecht et al), 106

thiamine retention (VanDrasek and Warthesen), 116

Pea

field, analysis of protein by NIR, in ground and whole seed (Tkachuk et al), 418

moisture and temperature effects on seed coat durability (Ehiwe et al), 237

protein functionality (Koyoro and Powers), 97

Pentosans

in barley grown in Finland (Lehtonen and Aikasalo), 133

cereal, estimation and significance of

in abraded grains and milling by-products (Hashimoto et al), 39 and protein relations (Shogren et al), 35

in wheat and milled wheat products (Hashimoto et al), 30

Phenolic compounds, free, in sorghum caryopsis and glumes (Doherty et al), 42

Phytate, interaction with minerals (Platt and Clydesdale), 102 Phytic acid

fractionation during air classification of rapeseed meal (King and Dietz),

influence of chromium absorption (Keim et al), 352

Polarography, differential pulse, analysis of ascorbic acid in wheat flour by (Cherdkiatgumchai and Grant), 288

Porridge, prepared from maize and sorghum (Vivas et al), 390 Prolamins

analysis of rice by HPLC (Lookhart et al), 199

effect of trifluoroacetic acid on water solubility of, communication to editor (Lookhart), 452

Protein

changes in protein levels in developing kernels of normal and high lysine lines (Ejeta and Axtell), 137

chemical effect on solubility (Endo et al), 110

composition and grain quality (Campbell et al), 293; (Cressey et al), 299 determination in hard and soft red winter wheat (Iskander et al), 285 digestibilities of barleys and their isolated protein fractions (Bhatty and

Whitaker), 144 in field peas, analysis in ground and whole seed by NIR (Tkachuk et al), 418

functionality (Koyoro and Powers), 97

heat denaturation of wheat endosperm proteins (Lupano and Añón), 437 of joioba meal

characterization (Wiseman and Price), 91

functional properties of (Wiseman and Price), 94

nutritional quality of oat-bran supplemented breads (Krishnan et al), 55 oat, thermal coagulation (Ma and Harwalkar), 212 quality of wheat and corn distillers' dried grains (Dong et al), 327

soybean seed, high-resolution SDS-PAGE of (Sathe et al), 380 tortilla production effect on (Vivas et al), 384

Rapeseed, air classification of (King and Dietz), 411

Rheology dough, as affected by ascorbic acid and fluoride ion (Grant), 403 of flour streams during dough mixing (Endo et al), 110

oat starch pastes, investigation of (Doublier et al), 21 of wheat flour-corn flour doughs (Navickis), 307

Rice

brown, elements of (Juliano et al), 27

identification of cultivars by HPLC (Lookhart et al), 199

parboiled, varietal effect on properties (Unnikrishnan and Bhattacharya), 315, 321

puffed, varietal differences (Villareal and Juliano), 337 thiamine retention (VanDrasek and Warthesen), 116

SDS-PAGE

estimation of molecular weights of glutenin subunits (Ng and Bushuk), 324

high-resolution, of soybean seed proteins (Sathe et al), 380 of wheat endosperm proteins (Lupano and Añón), 437

Seed coat, durability of as affected by seed moisture and temperature (Ehiwe et al), 237

Semolina, characterization by mid-infrared spectroscopy (Renard et al), 177

Sodium, in pasta, contents and retention of (Albrecht et al), 106 Sorghum

caryopsis and glumes, phenolic compounds and tannins in (Doherty et al), 42

decortication, lime cooked, nutritional value and amino acid composition (Serna-Saldivar et al), 247

nutritional evaluation of (Banda-Nyirenda et al), 413 protein and lysine levels in developing kernels (Ejeta and Axtell), 137 proteins in, effect of tortilla production on (Vivas et al), 384

thin porridge prepared from (Vivas et al), 390

Soy, incorporation into cereal-based foods (Buck et al), 264 Soybean

glycinin, polymerization of acidic subunits on (Yamagishi et al), 207 seed proteins, high-resolution SDS-PAGE of (Sathe et al), 380 Spaghetti, supplemented with corn distillers' dried grains (Wu et al), 434 Starch

¹³C nuclear magnetic resonance investigations (Hansen et al), 449 functionality affected by amylases (Kuracina et al), 182 glass transition in (Zeleznak and Hoseney), 121 lipid complex

factors influencing (Hahn and Hood), 81 method to quantify (Hahn and Hood), 77

maize, differential scanning calorimetry of (Krueger et al), 187

cooking effect on solubilization and digestibility (Yiu et al), 373 rheological investigation of pastes of (Doublier et al), 21 stearic acid interactions, measured by electron spin resonance (Pearce

et al), 154

wheat, hydrophobicity (Seguchi), 281 Storage, effects on white bread texture (Stöllman and Lundgren), 230 Sugar, effect of cookie spread (Doescher et al), 163

Sulfhydryl oxidase, effect on wheat dough (Kaufman and Fennema), 172 Sulfur, deficiency and amino acid sulfur (Juliano et al), 27

Tannins, in sorghum caryopsis and glumes (Doherty et al), 42

Thiamine, retention in cooked cereal products (VanDrasek and Warthesen), 116

Tortilla, production effect on sorghum and maize proteins (Vivas et al), 384 Trifluoroacetic acid, effect on solubility of gliadins, communication to editor (Lookhart), 452 Triticale, gluten quality comparison (Peña and Ballance), 128

Timoso, graces quanty companion (1 cm and Danance), 120

Ultrafiltration, for recovery of stillage soluble solids from hard and soft wheat (Wu), 260

Viscoelasticity, role of noncovalently bonded proteins in glutenin (Prasada Rao and Nigam), 168

Wheat

distillers' dried grains

protein quality (Dong et al), 327

with solubles, total dietary fiber (San Buenaventura et al), 135 Do-Corder studies on dough development (Endo et al), 110

drying effect on endosperm proteins (Lupano and Añón), 437 durum, characterization of milled products by mid-infrared

spectroscopy (Renard et al), 177 flours, pentosan and protein content (Shogren et al), 35

Fusarium head blight (scab), effects on location and cultivar on (Love and Seitz), 124

glutenin subunit molecular weights by SDS-PAGE (Ng and Bushuk),

hard and soft, recovery of stillage soluble solids from, by reverse osmosis and ultrafiltration (Wu), 260

hard and soft red winter, mineral and protein content of (Iskander et al), 285

hardness determination, by grinder rpm reduction (Williams et al), 422 hard red winter, NIR spectra of those varying in protein content and

breadmaking potential (Rubenthaler and Pomeranz), 407 HPLC analysis of gliadins and glutenins (Huebner and Bietz), 15 kernel texture, measurement methods (Gaines et al), 46

milling and quality characteristics of commercial wheats and their IB/IR derivatives (Dhaliwal et al), 72

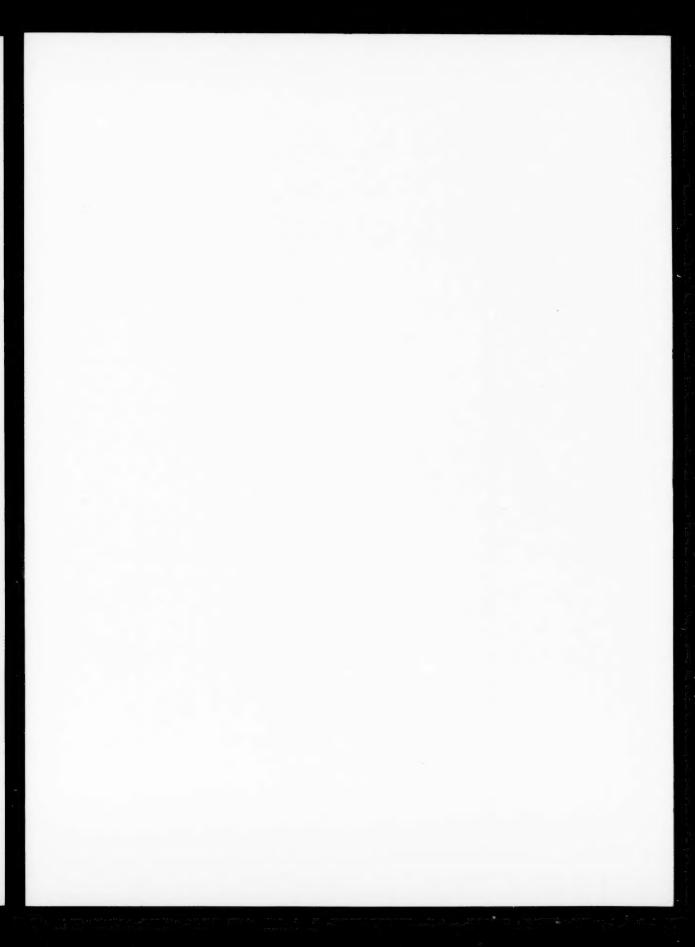
pentosans in, estimation and significance of (Hashimoto et al), 30 soft, PAGE gliadin patterns (Clements), 442

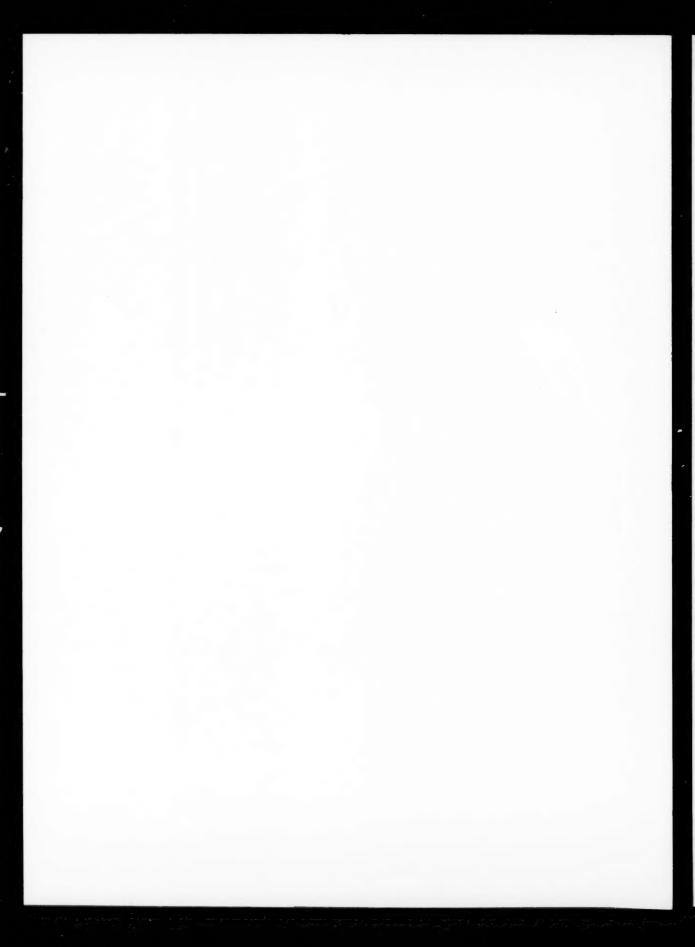
soft white winter, distillers' dried grains with solubles (Rasco et al), 139 Wheat bran, influence on chromium absorption (Keim et al), 352

Xylanase, detection of gel diffusion (Wood and Weisz), 8

Yeast, freeze-tolerant, new for frozen dough preparation (Hino et al), 269

Zinc, phytate-mineral complexes (Platt and Clydesdale), 102





- Instructions to Authors
- Acknowledgment of Reviewers
- Significance of Gluten Content as an Index of Flour Quality. R. G. Kulkarni, J. G. Ponte, Jr., and K. Kulp
- 3 Studies on Heavily Ground Flour Using Roller Mills. II. Chemical Alteration of Proteins, Particularly Globulin, During Dough Mixing. K. Okada, Y. Negishi, and S. Nagao
- 8 Detection and Assay of $(1 \rightarrow 4)-\beta$ -D-Glucanase, $(1\rightarrow 3)-\beta$ -D-Glucanase, $(1\rightarrow 3)(1\rightarrow 4)-\beta$ -D-Glucanase, and Xylanase Based on Complex Formation of Substrate with Congo Red. P. J. Wood and J. Weisz
- Improvements in Wheat Protein Analysis and Quality Prediction by Reversed-Phase High-Performance Liquid Chromatography. F. R. Huebner and J. A. Bietz
- A Rheological Investigation of Oat Starch Pastes. J.-L. Doublier, D. Paton, and G. Llamas
- Effect of Soil Sulfur Deficiency on Sulfur Amino Acids and Elements in Brown Rice. B. O. Juliano, M. G. B. Ibabao, C. M. Perez, R. B. Clark, J. W. Maranville, C. P. Mamaril, N. H. Choudhury, C. J. S. Momuat, and I. G. Corpuz
- Cereal Pentosans: Their Estimation and Significance. I. Pentosans in Wheat and Milled Wheat Products. S. Hashimoto, M. D. Shogren, and Y. Pomeranz
- Cereal Pentosans: Their Estimation and Significance. II. Pentosans and Breadmaking Characteristics of Hard Red Winter Wheat Flours. M. D. Shogren, S. Hashimoto, and Y. Pomeranz
- Cereal Pentosans: Their Estimation and Significance. III. Pentosans in Abraded Grains and Milling By-Products. S. Hashimoto, M. D. Shogren, L. C. Bolte, and Y. Pomeranz
- 42 Free Phenolic Compounds and Tannins in Sorghum Caryopsis and Glumes During Development. C. A. Doherty, R. D. Waniska, L. W. Rooney, C. F. Earp, and J. H. Poe
- Optimizing Grinder Type and Methods of Expressing Wheat Meal Particle Size for Wheat Texture (Hardness or Softness) Measurement and Near-Infrared Reflectance Spectroscopy. C. S. Gaines, R. E. Miller, J. R. Donelson, and M. M. Bean
- The Selection of Levels of Canola Oil, Water, and an Emulsifier System in Cake Formulations by Response-Surface Methodology. M. Vaisey-Genser, G. Ylimaki, and B. Johnston
- Effect of Commercial Oat Bran on the Characteristics and Composition of Bread. P. G. Krishnan, K. C. Chang, and G. Brown

- 59 Immunochemical Methods in Cereal Research and Technology. P. Vaag and L. Munck
- 72 Effect of 1B-1R Chromosome Translocation on Milling and Quality Characteristics of Bread Wheats. A. S. Dhaliwal, D. J. Mares, and D. R. Marshall
- 77 Development of an Equilibrium Dialysis Technique for Quantifying Starch-Lipid Complexes. D. E. Hahn and L. F. Hood
- 81 Factors Influencing Corn Starch-Lipid Complexing. D. E. Hahn and L. F. Hood
- 86 Variability in Dehulling Quality of Cowpea, Pigeon Pea, and Mung Bean Cultivars Determined with the Tangential Abrasive Dehulling Device. A. O. F. Ehiwe and R. D. Reichert
- 91 Characterization of Protein Concentrates of Jojoba (Simmondsia chinensis) Meal. M. O. Wiseman and R. L. Price
- 94 Functional Properties of Protein Concentrates from Pressed Jojoba Meal. M. O. Wiseman and R. L. Price
- 97 Functional Properties of Pea Globulin Fractions. H. Koyoro and J. R. Powers
- 102 Interactions of Iron, Alone and in Combination with Calcium, Zinc, and Copper, with a Phytate-Rich, Fiber-Rich Fraction of Wheat Bran Under Gastrointestinal pH Conditions. S. R. Platt and F. M. Clydesdale
- Contents and Retentions of Sodium and Other Minerals in Pasta Cooked in Unsalted or Salted Water.
 J. A. Albrecht, E. H. Asp, and I. M. Buzzard
- Studies on Dough Development. III. Mixing Characteristics of Flour Streams and Their Changes During Dough Mixing in the Presence of Chemicals. S. Endo, K. Okada, and S. Nagao
- 116 Thiamine Partitioning and Retention in Cooked Rice and Pasta Products. H. T. VanDrasek and J. J. Warthesen
- 121 The Glass Transition in Starch. K. J. Zeleznak and R. C. Hoseney
- 124 Effects of Location and Cultivar on Fusarium Head Blight (Scab) in Wheat from Kansas in 1982 and 1983. G. R. Love and L. M. Seitz
- 128 Comparison of Gluten Quality in Triticale: A Fractionation-Reconstitution Study. R. J. Peña and G. M. Ballance
- 133 NOTE: Pentosans in Barley Varieties. M. Lehtonen and R. Aikasalo
- NOTE: The Total Dietary Fiber Content of Wheat, Corn, Barley, Sorghum, and Distillers' Dried Grains with Solubles.
 M. L. San Buenaventura, F. M. Dong, and B. A. Rasco

- Protein and Lysine Levels in Developing Kernels of Normal and High-Lysine Sorghum. G. Ejeta and J. Axtell
- 139 Consumer Acceptability of Baked Goods Containing Distiller's Dried Grains with Solubles from Soft White Winter Wheat. B. A. Rasco, S. E. Downey, and F. M. Dong
- In Vivo and In Vitro Protein Digestibilities of Regular and Mutant Barleys and Their Isolated Protein Fractions. R. S. Bhatty and J. R. Whitaker
- Compressibility of Baked Goods After Carbon Dioxide Atmosphere Processing and Storage. D. Knorr
- 154 Stearic Acid-Starch Interactions as Measured by Electron Spin Resonance. L. E. Pearce, E. A. Davis, J. Gordon, and W. G. Miller
- 158 A Mechanism for Cookie Dough Setting. L. C. Doescher, R. C. Hoseney, and G. A. Milliken
- Effect of Sugars and Flours on Cookie Spread Evaluated by Time-Lapse Photography. L. C. Doescher, R. C. Hoseney, G. A. Milliken, and G. L. Rubenthaler
- Gel Filtration Chromatography of Glutenin in Dissociating Solvents: Effect of Removing Noncovalently Bonded Protein Components on the Viscoelastic Character of Glutenin. U. J. S. Prasada Rao and S. N. Nigam
- Evaluation of Sulfhydryl Oxidase as a Strengthening Agent for Wheat Flour Dough. S. P. Kaufman and O. Fennema
- Qualitative Characterization of the Purity of Milled Durum Wheat Products by Multidimensional Statistical Analysis of Their Mid-Infrared Diffuse Reflectance Spectra. C. Renard, P. Robert, D. Bertrand, M. F. Devaux, and J. Abecassis
- Starch Functionality as Affected by Amylases from Different Sources. T. A. Kuracina, K. Lorenz, and K. Kulp
- Differential Scanning Calorimetry of Raw and Annealed Starch Isolated from Normal and Mutant Maize Genotypes. B. R. Krueger, C. E. Walker, C. A. Knutson, and G. E. Inglett
- NOTE: B-Glucan in Two- and Six-Rowed Barley. M. Lehtonen and R. Aikasalo
- 193 NOTE: Navy Bean Flour Substitution in a Master Mix Used for Muffins and Cookies. N. D. Cady, A. E. Carter, B. E. Kayne, M. E. Zabik, and M. A. Uebersax
- 196 NOTE: Rapid Determination of Moisture in Masa with a Domestic Microwave Oven. D. S. Jackson and L. W. Rooney
- 198 Erratum

- 199 Identification of U.S. Rice Cultivars by High-Performance Liquid Chromatography. G. L. Lookhart, L. E. Albers, Y. Pomeranz, and B. D. Webb
- 207 Covalent Polymerization of Acidic Subunits on Heat-Induced Gelation of Soybean Glycinin. T. Yamagishi, N. Takahashi, and F. Yamauchi
- 212 Thermal Coagulation of Oat Globulin. C.-Y. Ma and V. R. Harwalkar
- 218 Nutritional and Functional Characteristics of Extrusion-Cooked Amaranth Flour. C. Mendoza M. and R. Bressani
- 222 Addition of Sucrose Fatty Acid Ester Emulsifiers to Sponge Cakes.
 M. M. Pierce and C. E. Walker
- 226 Amino Acid Analysis of Feedstuff Hydrolysates by Precolumn Derivatization with Phenylisothiocyanate and Reversed-Phase High-Performance Liquid Chromatography. R. G. Elkin and A. M. Wasynczuk
- 230 Texture Changes in White Bread: Effects of Processing and Storage.

 U. Stöllman and B. Lundgren
- 237 Effect of Seed Moisture Content and Temperature on the Seed Coat Durability of Field Pea. A. O. F. Ehiwe, R. D. Reichert, D. J. Schwab, E. S. Humbert, and G. Mazza
- 240 Influence of Solutes and Water on Rice Starch Gelatinization.

 A. Chungcharoen and D. B. Lund
- 244 Recovery of Protein-Rich By-Products from Sweet Sorghum Grain Stillage After Alcohol Distillation. Y. V. Wu
- 247 Effects of Lime Cooking on Energy and Protein Digestibilities of Maize and Sorghum. S. O. Serna-Saldivar, D. A. Knabe, L. W. Rooney, and T. D. Tanksley, Jr.
- 253 Saccharide Analysis of Corn Syrup Solids and Maltodextrins Using High-Performance Liquid Chromatography. J. R. Brooks and V. K. Griffin
- 256 Changes in Iron Forms During Extrusion Processing. R. S. Kadan and G. M. Ziegler, Jr.
- 260 Recovery of Stillage Soluble Solids from Hard and Soft Wheat by Reverse Osmosis and Ultrafiltration. Y. V. Wu
- 264 Incorporation of Corn Gluten Meal and Soy into Various Cereal-Based Foods and Resulting Product Functional, Sensory, and Protein Quality. J. S. Buck, C. E. Walker, and K. S. Watson
- 269 New Freeze-Tolerant Yeast for Frozen Dough Preparations. A. Hino, H. Takano, and Y. Tanaka
- 275 Differences in Corn Endosperm Proteins in Developing Seeds of Normal and Opaque-2 Corn. J. S. Wall and J. A. Bietz
- 281 NOTE: Effect of Chlorination on the Hydrophobicity of Wheat Starch. M. Seguchi

- 283 NOTE: Lipid and Color Evaluations of Solvent-Extracted Maize Gluten Meal. P. L. Harris, S. L. Cuppett, C. E. Walker, and J. H. Rupnow
- 285 NOTE: Determination of Protein and 11 Elements in Six Milling Fractions of Two Wheat Varieties. F. Y. Iskander, M. M. Morad, D. E. Klein, and T. L. Bauer
- 288 NOTE: The Determination of Ascorbic Acid in Wheat Flour Suspension by Differential Pulse Polarography. P. Cherdkiatgumchai and D. R. Grant

VOLUME 64, NUMBER 5

SEPTEMBER-OCTOBER 1987

- 293 Statistical Correlations Between Quality Attributes and Grain-Protein Composition for 71 Hexaploid Wheats Used as Breeding Parents. W. P. Campbell, C. W. Wrigley, P. J. Cressey, and C. R. Slack
- 299 Statistical Correlations Between Quality Attributes and Grain-Protein Composition for 60 Advanced Lines of Crossbred Wheat. P. J. Cressey, W. P. Campbell, C. W. Wrigley, and W. B. Griffin
- 302 Milling, Baking, and Physical-Chemical Properties of Selected Soft White Winter and Spring Wheats. M. S. Kaldy and G. L. Rubenthaler
- 307 Corn Flour Addition to Wheat Flour Doughs—Effect on Rheological Properties. L. L. Navickis
- 311 Changes in the Gliadin Fraction(s) During Breadmaking: Isolation and Characterization by High-Performance Liquid Chromatography and Polyacrylamide Gel Electrophoresis. M. Menkovska, G. L. Lookhart, and Y. Pomeranz
- 315 Influence of Varietal Difference on Properties of Parboiled Rice. K. R. Unnikrishnan and K. R. Bhattacharya
- 321 Properties of Pressure-Parboiled Rice as Affected by Variety.

 K. R. Unnikrishnan and K. R. Bhattacharya
- 324 Glutenin of Marquis Wheat as a Reference for Estimating Molecular Weights of Glutenin Subunits by Sodium Dodecyl Sulfate-Polyacrylamide Gel Electrophoresis. P. K. W. Ng and W. Bushuk
- 327 A Protein Quality Assessment of Wheat and Corn Distillers' Dried Grains with Solubles. F. M. Dong, B. A. Rasco, and S. S. Gazzaz
- 332 Physical Properties and Some Nutritional Characteristics of an Extrusion Product with Defatted Amaranth Seeds and Defatted Maize Gluten Meal (80:20 Ratio). S. J. Koeppe, P. L. Harris, M. A. Hanna, J. H. Rupnow, C. E. Walker, and S. L. Cuppett
- 337 Varietal Differences in Quality Characteristics of Puffed Rices. C. P. Villareal and B. O. Juliano

- 343 Chemical Leavening: Effect of pH and Certain Ions on Breadmaking Properties. J. T. Holmes and R. C. Hoseney
- 348 Frozen Doughs: Freezing and Thawing Rates and the Potential of Using a Combination of Yeast and Chemical Leavening.
 J. T. Holmes and R. C. Hoseney
- 352 Absorption of Chromium as Affected by Wheat Bran. K. S. Keim, C. L. Holloway, and M. Hebsted
- 356 NOTE: Evaluation of Digitally Filtered Aquagram Signals of Wet and Dry Corn Mixtures. C. R. Martin, Z. Czuchajowska, and Y. Pomeranz

VOLUME 64, NUMBER 6 NOVEMBER-DECEMBER 1987

- 359 High α-Amylase Flours: Effect of pH, Acid, and Salt on Paste Characteristics. K. Harinder and G. S. Bains
- 363 Air Classification of Pin-Milled Break and Middling Flours from Hard Red Spring Wheat. D. M. Nowakowski, F. W. Sosulski, and R. D. Reichert
- 370 Test to Determine the Optimum Water Absorption for Saltine Cracker Doughs. D. E. Rogers and R. C. Hoseney
- 373 Effects of Cooking on Starch and β-Glucan of Rolled Oats. S. H. Yiu, P. J. Wood, and J. Weisz
- 380 High-Resolution Sodium Dodecyl Sulfate-Polyacrylamide Gel Electrophoresis of Soybean (Glycine max L.) Seed Proteins. S. K. Sathe, G. G. Lilley, A. C. Mason, and C. M. Weaver
- 384 Effect of Tortilla Production on Proteins in Sorghum and Maize. N. E. Vivas, R. D. Waniska, and L. W. Rooney.
- 390 Thin Porridges (Atole) Prepared from Maize and Sorghum.
 N. E. Vivas, R. D. Waniska, and L. W. Rooney
- 394 Differential Scanning Calorimetry of Oat Starch Pastes. D. Paton
- 399 Effect of Meat-Bread Mixtures on Bioavailability of Total Dietary Iron for Anemic Rats. A. M. Thannoun, A. W. Mahoney, D. G. Hendricks, and D. Zhang
- 403 Ascorbate Oxidase Inhibition in Dough by Fluoride Ion and Its Effect upon Dough Rheology. D. R. Grant
- 407 Near-Infrared Reflectance Spectra of Hard Red Winter Wheats Varying Widely in Protein Content and Breadmaking Potential. G. L. Rubenthaler and Y. Pomeranz
- 411 Air Classification of Rapeseed Meal. R. D. King and H. M. Dietz

- 413 Nutritional Evaluation of Some Varieties of Sorghums (Sorghum bicolor (L.) Moench). D. B. G. Banda-Nyirenda, P. Vohra, and K. H. Ingebretson
- 418 Analysis of Protein in Ground and Whole Field Peas by Near-Infrared Reflectance. R. Tkachuk, F. D. Kuzina, and R. D. Reichert
- 422 Measuring Wheat Hardness by Revolutions per Minute Reduction. P. C. Williams, R. H. Kilborn, P. W. Voisey, and M. Kloek
- **428** Factors Affecting Dough Breakdown During Overmixing. K. Okada, Y. Negishi, and S. Nagao
- 434 Evaluation of Spaghetti Supplemented with Corn Distillers' Dried Grains. Y. V. Wu, V. L. Youngs, K. Warner, and G. N. Bookwalter
- 437 Denaturation of Wheat Endosperm Proteins During Drying. C. E. Lupano and M. C. Añón
- 442 A Study of Gliadins of Soft Wheats from the Eastern United States Using a Modified Polyacrylamide Gel Electrophoresis Procedure. R. L. Clements
- 449 NOTE: ¹³C Nuclear Magnetic Resonance Spectroscopic Methods for Investigating Sucrose-Starch Interactions with Increasing Temperature. L. M. Hansen, J. V. Paukstelis, and C. S. Setser
- 452 COMMUNICATION TO THE EDITOR: Gliadins Treated with Trifluoracetic Acid Are Water Soluble. G. L. Lookhart
- 453 Cereal Chemistry Editors and Staff
- 455 Author Index, Volume 64
- 458 Subject Index, Volume 64
- 461 Contents Index, Volume 64